

CLAIMS

What is claimed is:

1. A method of segmenting an image, comprising:
selecting, for each pixel to be thresholded in the image, one threshold among
a plurality of thresholds, based on the relative magnitudes of the thresholds;
and
assigning each pixel to one of two classes according to the value of its
intensity relative to the selected threshold for the pixel.
2. The method of claim 1, further comprising:
selecting among at least one threshold that is dynamic, and a threshold that
is constant.
3. The method of claim 1, further comprising:
selecting a threshold corresponding to the highest intensity value among the
plurality of thresholds.
4. The method of claim 1, further comprising:
selecting the threshold having the largest magnitude among the plurality of
thresholds.

5. A method of determining a threshold, comprising:

computing, for each pixel of an image to be thresholded, at least one threshold that is dynamic;
computing, for at least a region of the image, a threshold that is constant;
and
selecting, for each pixel of the image to be thresholded, one of the dynamic and constant thresholds.

6. The method of claim 5, further comprising:

selecting the threshold that corresponds to a highest intensity.

7. The method of claim 5, further comprising:

computing the dynamic threshold as an offset from a highest intensity of the image in a region around a pixel of the image to be thresholded.

8. A method of identifying characters in an image, comprising:

computing, for each pixel, at least one variable threshold;
computing, for at least a region of the image, a constant threshold;
selecting, for each pixel, the threshold corresponding to the highest intensity among the at least one variable threshold and the constant threshold;
comparing, an intensity for each pixel, to the selected threshold; and
assigning a pixel to a character class when an intensity for the pixel is less than the selected threshold for the pixel.

9. A system for segmenting an image, comprising:

means, for each pixel of the image, for determining a plurality of thresholds;
means, for each pixel of the image, for selecting one threshold among the
plurality of thresholds; and

means for assigning a pixel to one of two classes depending on whether an
intensity of the pixel is greater than the selected threshold for the pixel.

10. An image processing system, comprising:

a processor having an input for receiving a digital image;
a memory medium, readable by the processor, containing a program to
instruct the processor to perform the following method:

selecting, one threshold among a plurality of thresholds, based on the
relative magnitudes of the thresholds; and,
assigning each pixel in the digital image to one of two classes
according to the value of its intensity relative to the selected
threshold for the pixel.

11. A computer readable medium, containing a program to perform the following
steps:

selecting, for each pixel in a digital image, one threshold among a plurality
of thresholds, based on the relative magnitudes of the thresholds; and,
assigning each pixel in the digital image to one of two classes according to
the value of its intensity relative to the selected threshold for the pixel.